CarBrain C168 User Manual

Instruction Manual

CarBrain C168

CarBrain C168 diagnostic scanner is using Bluetooth wireless technology and based on Windows Operating System, it is designed to bridge the gap between vehicle electronic complexity and the automotive technician.

1. CarBrain C168 Software

1.1 Software requirement

windows95/98/me/2000/XP，suggest to use windows 2000/XP

1.2 Software part

Software part consists of vehicle failure diagnosis software, maintenance data and driver procedure of USB converting to RS232.

Automobile failure diagnosis software: all kinds of vehicle types diagnosis software including tens of thousands of Asian, European and American automobile types.

Maintenance data: all kinds of automobile types mantenance data including maintenance light reseting to zero etc.

USB to RS232 driver: driver of computer and communication equipment port.

2. CarBrain C168 Hardware

2.1 Hardware requirement

- One USB port at least
- P II or above processor
- 64M or above EMS memory
- Suggest to use CRT or LCD screen
- Suggest to use mobile PC
- Resolution is 640*480/800*720/1024*768, suggest to use 800*600/1024*768

2.2 Hardware accessory

CarBrain C168 Hardware consists of communication equipment、diagnosis adaptor and several cables.

Communication equipment：

COMBOX

RF-BOX

Diagnosis adaptor：

BMW-20

BENZ-38

Chrysler-6

GM-12

KIA-20

CANBUS-II

NISSAN-14

OBDII-16

TOYOTA-17F

TOYOTA/MAZDA-17R

HONDA-3

Cable:

AUDI-4

CITROEN-2

FIAT/SUZUKI/DAIHATSU

MITSUBISHI/HYUNDAI

LIGHT CABLE

UNIVERSAL L-3

UNIVERSAL S-3

USB

Packing:

Plastic box with strong resistance

Installation CD

Note:

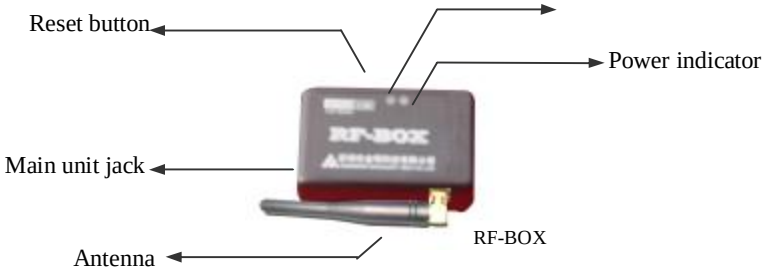
There is interior wireless communication module, automobile port module and computer port module in the COMBOX.

Main cable is using to connect computer and COMBOX.

Diagnosis extend line is connected to COMBOX and diagnosis socket.

Light cable is using to supply power from automobile to COMBOX.

Clipper cable is using to supply power from automobile storage battery to COMBOX



Note：

1. When the power LED is red, then it is under normal condition, whereas under abnormal condition.

2. The blue LED is wireless signal indicator， It shows the signal is stable when the LED lights constantly and is unstable when the LED lights flickeringly.

3. USB jack connects the main cable to computer.

COMBOX

Note：

1. When the power LED is red, then it is under normal condition,whereas under abnormal condition.

2. Other LEDs are communication indicator, will flicker when communicating

3. USB jack as the wire communication connects the main cable to computer.

4. DB26 socket is diagnosis socket connecting to diagnosis adpator or diagnostic extend cable.

5. The rotary switch is using to connect diagnosis adpator or diagnostic extend line

Diagnostic extend cable

Note：

Connect one jack of diagnostic extend cable to diagnosis adpator, and the other side

to COMBO

USB cable

Note：

Connect one jack of main cable to computer and the other jack to COMBOX when it is under wired connection or RF box when it is under wireless connection.

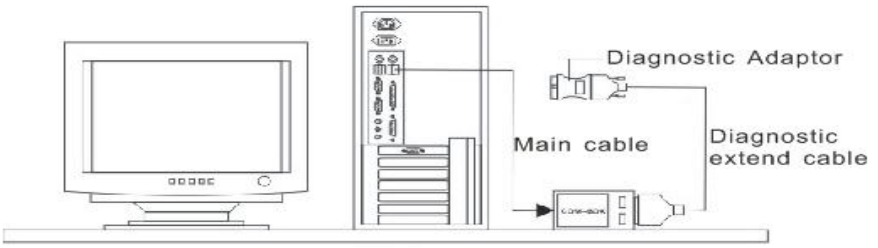
BMW-20 diagnosis adaptor

Note：

Connect one jack of BMW-20 diagnosis adaptor to the automobile diagnosis jack, and other jack to the COMBOX or diagnosis extend cable。

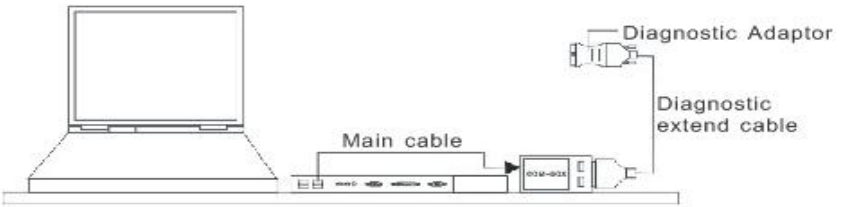
3. Hardware connection sketch map

Wired connection:



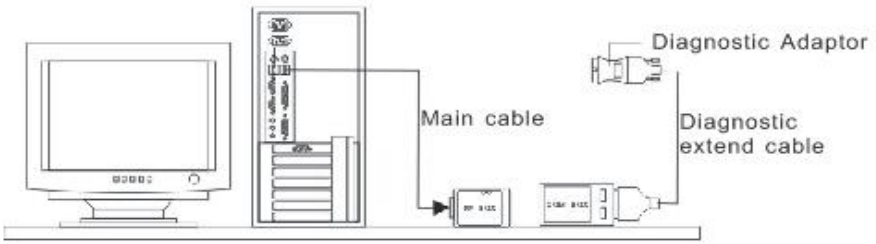
Drawing 1

Wired connection: (Desktop)

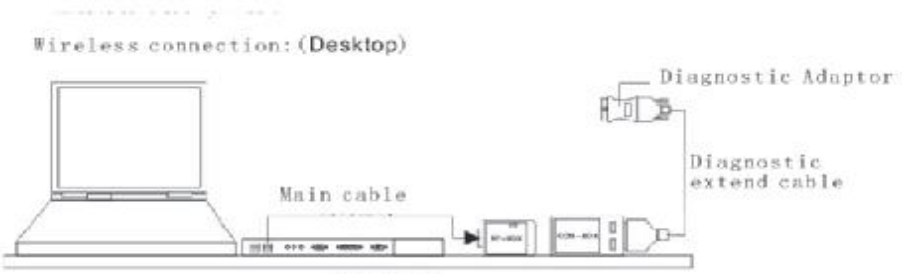


Drawing 2

Wireless connection:



Drawing 3



Drawing 4

Note：

1. The location of automobile diagnosis jack is not fixed, some are under the control board, some are in the engine storehouse, and some are under the cab seat.

2. Please insert the diagnosis adaptor to the automobile diagnosis jack directly.

3. You can connect the COMBOX and diagnosis adaptor directly. If the COMBOX jack can't be connected with the diagnosis adaptor conveniently, you can use the diagnostic extend cable to connect.

4. In the above drawing, there are two cables, the end user can select any one to connect according to the actual situation.

5. **Wire communication:** You can connect the COMBOX and computer by the main cable, and the main cable can be connected to the USB jack on the computer directly, please refer to the above drawing 1.

6. **Wireless communication:** You can connect the COMBOX and computer by the RF-BOX, and connect the RF-BOX with the USB jack on the computer by the main cable, please refer to the above drawing 2.

7. If there is no power supply from the automobile adaptor, please obtain power source from the automobile through the light cable or alligator clip of the double pliers' light cable; connect one jack of light cable to the automobile jack, and connect other jack to the power jack of COMBOX.

4. Install CD introduction

There are automobile failure diagnosis software, maintenance help documents and USB to RS232 driver in the CD.

CarBrain_XX.exe.....automobile failure diagnosis software

CarDocs.exe.....maintenance help documents

USB to RS232(2.0) Driver.....USB to RS232 driver

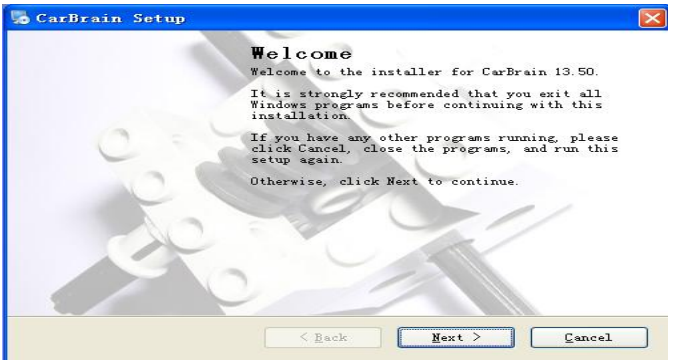
Note:

1. If the XX in the CarBrain_XX is SD, it means Carbrain C168's install software is simple Chinese version for all vehicles.
2. If the XX in the CarBrain_XX is CN, it means Carbrain C168's install software is simple Chinese version for the vehicles made in China.
3. If the XX in the CarBrain_XX is TW, it means Carbrain C168's install software is complicated Chinese version for Taiwan user.
4. In the XX in the CarBrain_XX is HK, it means Carbrain C168's install software is complicated Chinese version for Hongkong user.

4.1. Install Carbrain C168

4.1.1 Install

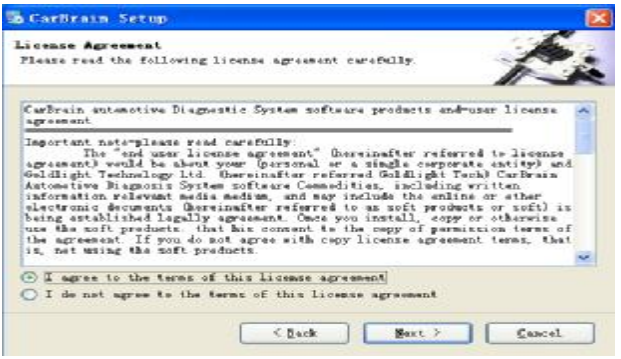
- Ø Lay the Carbrain C168 install CD in the computer driver
- Ø Operate CarBrain_XX file in the disc。
- Ø It will show the installation inferface, please refer to the below drawing:


CarBrain Setup
Welcome
Welcome to the installer for CarBrain 13.50.
It is strongly recommended that you exit all Windows programs before continuing with this installation.
If you have any other programs running, please click Cancel, close the programs, and run this setup again.
Otherwise, click Next to continue.
< Back
Next >
Cancel

Click the next step button to continue the installation or the cancel button

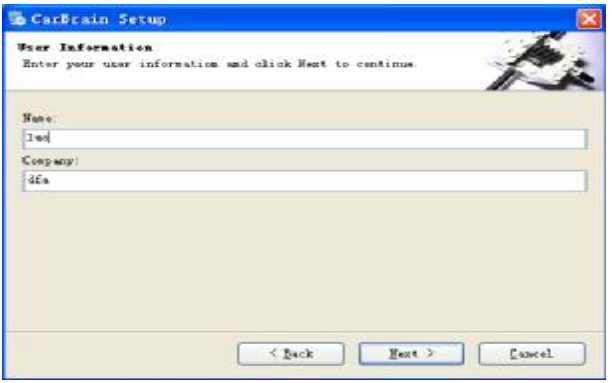
to quit installation

Ø Click the next step button to show the installation permissive agreement, refer to the below drawing.


CarBrain Setup
License Agreement
Please read the following license agreement carefully.
I agree to the terms of this license agreement
I do not agree to the terms of this license agreement
< Back
Next >
Cancel

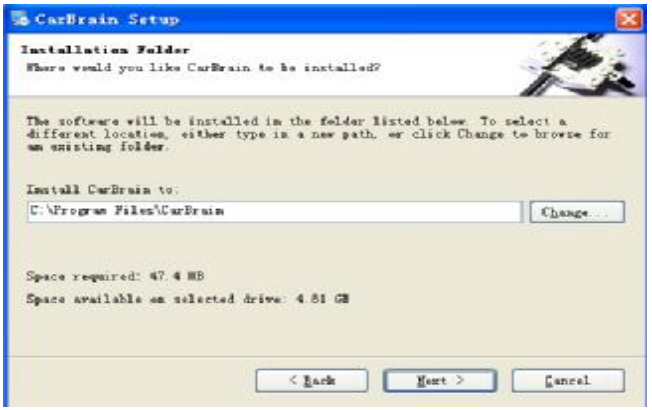
Please read the permissive agreement carefully, if you don't agree with the permission agreement, please click the Cancel button to quit installation; if you agree with the permission agreement, please select "I agree with the permission agreement" and click the next step to continue the installation.

Ø Click the next step button to show the end user's information interface, refer to the below drawing.



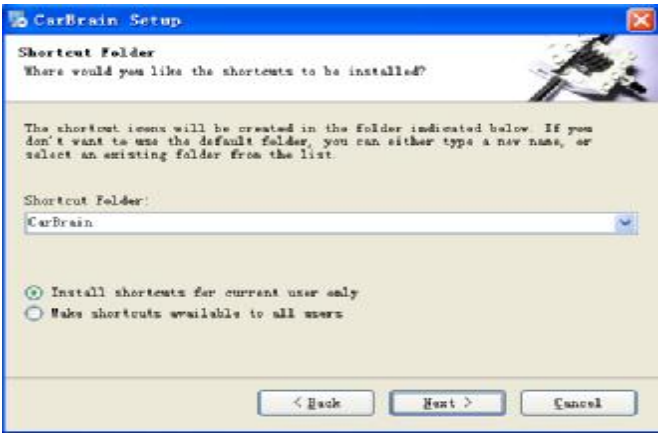
Please imput your information and click the Next step button to continue the installation, or click the Cancel button to quit the installation.

Ø Click the Next step button to show the installation folder interface,refer to the below drawing.


CarBrain Setup
Installation Folder
Where would you like CarBrain to be installed?
The software will be installed in the folder listed below. To select a different location, either type in a new path, or click Change to browse for an existing folder.
Install CarBrain to:
C:\Program Files\CarBrain
Change...
Space required: 47.4 MB
Space available on selected drive: 4.81 GB
< Back
Next >
Cancel

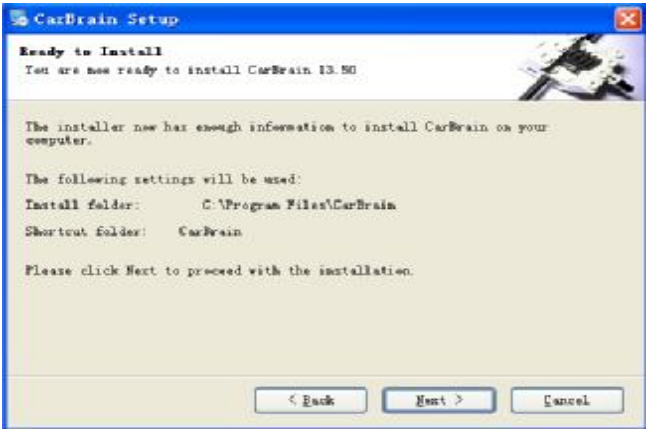
Please imput or select the installation file path, and click the Next step to continue the installation or click the Cancel button to quit the installation.

Ø Click the Next step button to show the installation shortcut folder interface, refer to the below drawing;


CarBrain Setup
Shortcut Folder
Where would you like the shortcuts to be installed?
The shortcut icons will be created in the folder indicated below. If you don't want to use the default folder, you can either type a new name, or select an existing folder from the list.
Shortcut Folder:
CarBrain
Install shortcuts for current user only
Make shortcuts available to all users
< Back
Next >
Cancel

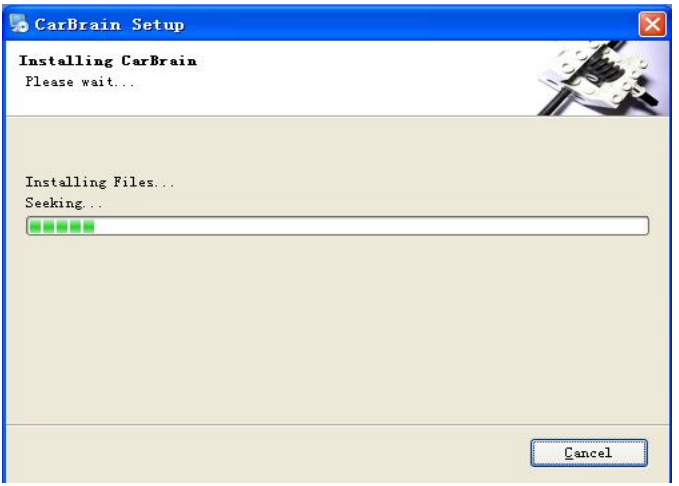
Click the Next step button to continue the installation or click Cancel to quit the installation.

Ø Click the Next step to show the ready installation interface, refer to the below drawing:

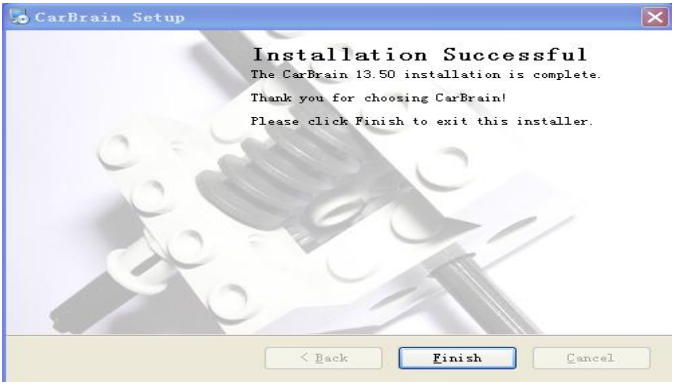

CarBrain Setup
Ready to Install
You are now ready to install CarBrain 13.50
The installer now has enough information to install CarBrain on your computer.
The following settings will be used:
Install folder: C:\Program Files\CarBrain
Shortcut folder: CarBrain
Please click Next to proceed with the installation.
< Back
Next >
Cancel

Click the Next step button to continue the installation or click Cancel to quit the installation.

Ø Click the Next step button to show the installation progress interface, refer to the below drawing:



If want to quit the installation, please click the Cancel button, or please wait for the successful installation interface, refer to the below drawing:

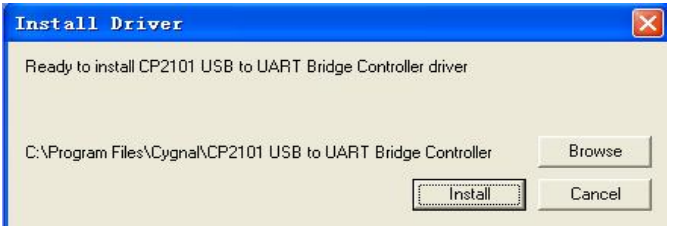


Click the Finish button to finish the installation of automobile failure diagnosis system, and continue to install the USB to RS232 driver.

Install USB to RS232 driver automatically:

- The installation procedure will install the USB to RS232 driver automatically after finishing the installation of automobile failure diagnosis software, refer to the below drawing:

- Click the Confirm button to install USB to RS232 driver, refer to the below drawing:



- Click Browse button to select the installation path for USB to RS232 driver, and click Cancel button to quit this installation or click Install to process the USB to RS232 driver.

After a few minutes, the successful installation interface will be showed on

screen, refer to the below drawing:

- Click Confirm button to finish the installation of USB to RS232 dirver, and continue to install the maintenance data.
- Installation complete

After finishing the software installation, the below icon will be created in theWinwdows Desktop.

4.1.2 Registration

C168 software is copyright software; only the user that has been authorized by our company can use this software. After register, users can use this software freely and without any limitation. Without our company's permission and authorization, please don't release or diffuse C168 software.

The detailed register procedure is blow:

1. Operate C168 software, and system will show the register interface automatically.
2. Input the equipment code in the equipment code column.
3. Input the register code in the register code column
4. Click the register button to register, and system will show register success of failure.

After successful register, then have no need to register again when enters into next time.

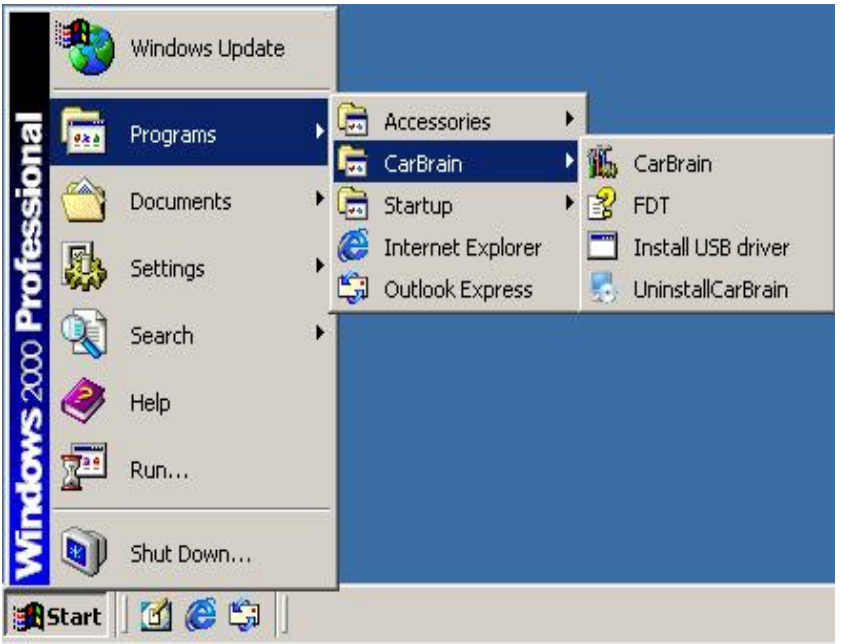
Note:

1. The equipment code and register code are in the packing box.
2. Please get the register code from our company, and provide the equipment code and identifier code, it will be displayed when start the software.
3. Please keep your equipment code and register code safely.
4. If you reinstall your system, then you need to register again. (Inputting the original equipment code and register code is OK)

5. Operate Carbrain C168

Method 1:

Click the Start menu of Windows, and select Start → Programs→ CarBrain →CarBrain, please refer to the below diagram:

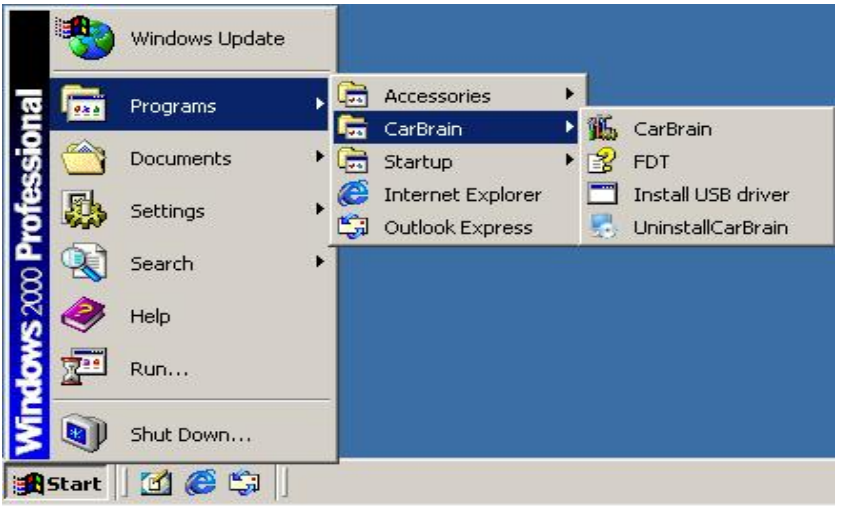


Method 2:

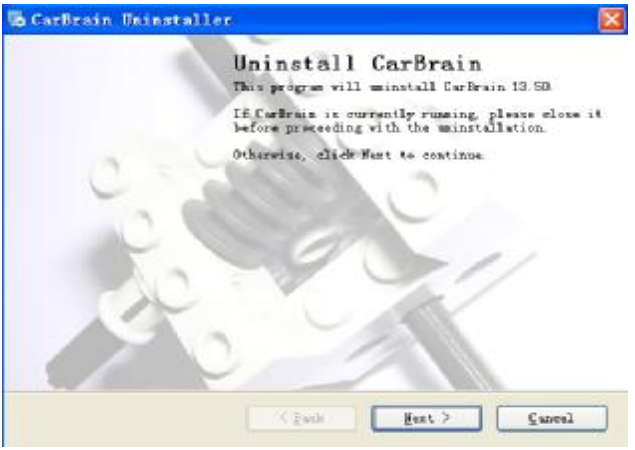
Click the shortcut Iconon your computer's desktop directly.

6. Uninstall Carbrain C168

1. Click the Start menu of Windows, and select Start→ Programs→ CarBrain→ Uninstall CarBrain, refer to the below drawing:



2. After selecting Uninstall Carbrain, then the "uninstall Carbrain interface" will be showed on screen, refer to the below drawing:


CarBrain Uninstaller
Uninstall CarBrain
This program will uninstall CarBrain 13.50.
If CarBrain is currently running, please close it before proceeding with the uninstallation.
Otherwise, click Next to continue.
< Back
Next >
Cancel

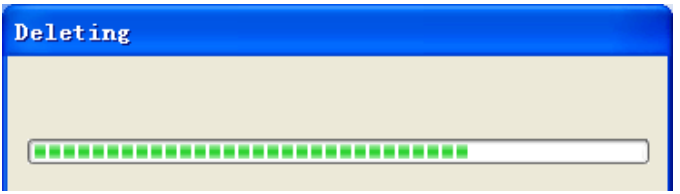
Click the Next step button to continue, or click Cancel button to quit uninstall.

3. Click the Next step button, the below message will appear on screen.

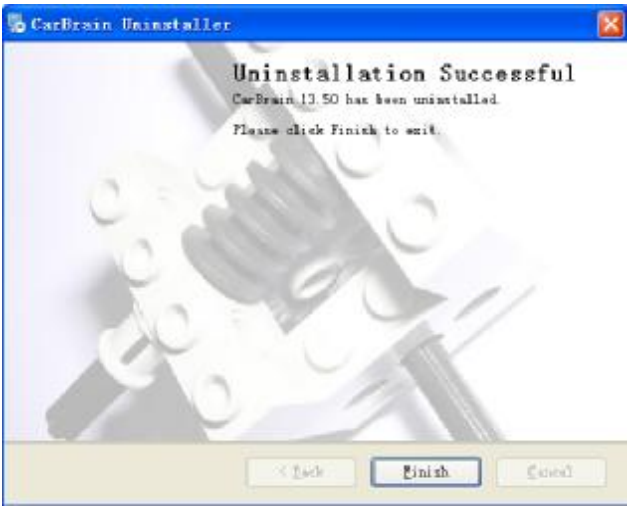
CarBrain Setup
Would you like to remove all the user information and the diagnotic results in the database?,Click Yes to remove, click No to reserve
是(Y)
否(N)

If select Yes, then all the user information、the relative diagnosis records and system self-learn data will be deleted. If select No, then the above data will be kept, we suggest you to select No.

4. After selecting Yes or No, then start to uninstall Carbrain file, and the uninstall progress interface will appear on screen refer to the below drawing:



It may take a few minutes to complete this uninstall, and the successful uninstall interface will appear on screen, refer to the below drawing:



5. Click Confirm button the finish uninstall

7. Carbrain C168 software upgrade

If you use the upgrade disc provided by our company, please refer to the Carbrain C168 to install, if you download the upgrade software, please refer to the below steps to upgrade.

1. Log on our company's website

2. Register or log on from the member column.(Only the customers have the member qualification can download the upgrade software)

3. Select upgrade on-line, then select upgrade software.

4. Download the diagnosis installation program (CarBrain_En.exe).

5. Run CarBrain_En.exe program, if you've already installed Carbrain C168, the system will remind you to uninstall Carbrain C168 (refer to Uninstall Carbrain C168 on page18)firstly, and if not, then the system will remind you to install Carbrain C168（refer to Install Carbrain C168 on page 10）.

6. Thus, the upgrade is completed.

8. USB TO RS232

Explanation：

Carbrain C168 is using RS232 to communicate with computer. In view of some notebook don't have RS232 jack, but almost all the PC and notebook computers have RS232 jack, so we use USB as the exterior jack, and RS232 as the interior communication mode. Then we need to install a dummy RS232 jack to complete the communication. So we install USB to RS232 driver to simulate RS232 jack. Consideration of the convenience of USB jack, USB to RS232 can be connected to the peripheral equipment of the serial port (RS232) and provide an easy communication environment, the transmitted speed is up to 12Mbps. The working theory is that after the installation of USB to RS232, it will simulate one serial COM port in your computer automatically. For example: there are two serial ports COM1 & COM2, after the installation of USB to RS232 driver, then it will simulate one COM3 jack automatically. In general, the driver will allot the detailed COM number automatically. If there is no RS232 jack in your computer such as the newer notebook computer, then the driver will simulate one COM1 port automatically. This simulated COM port is same as the original COM port in computer for the applied software. If your applied software can select this simulated COM port, then the communication to RS232 will be come true.

1. Performance

- Communication between（ASIC）USB jack and serial port.
- Support Windows 98/ME and Windows 2000/XP
- Accord with USB V1.1 and USB V2.0 criterion
- USB full speed connection (12Mbps)
- No need to get power supply from external cable, just using USB cable to get.
- Standard USB jack (4pin), and have symbol.

2. Check

If want to check the USB to RS232 driver is installed successful or not, you just need to check whether there is dummy RS232 jack in your computer. Please follow the below steps to check:

- Ø Using main cable to connect the COMBOX or RF-box to your computer.
- Ø Follow the below steps to check whether there is CP2101 USB to Uart Bridge Controller (COMx): Start→ Setting→ Control panel→ System→
  Hardware→ Device Manager→ Ports(COM & LPT)→CP2101 USB to UART Bridge Controller(COMx). If it exits, then the driver is installed successfully, if it doesn't exit, please refer to Step c. If X in COMx is number such as 1、2、3, then they are corresponding to COM1、COM2 and COM3,etc.
- Ø Please check the connection between your computer and COMBOX or RF-Box is OK or not, if it isn't fine, please correct it and return to Step b; if it is OK, then refer to Stepd.
- Ø Please check if "Universal Serial Bus controllers" appears "Cygnal USB Composite Device" or if "other devices" appears "CP2102 USB to UART Bridge Controller" like diagrams below please refer to 3.Installation.

3. Installation

Here below is the introduction of how to install USB to RS232 driver, taking Windows2000 as the example:

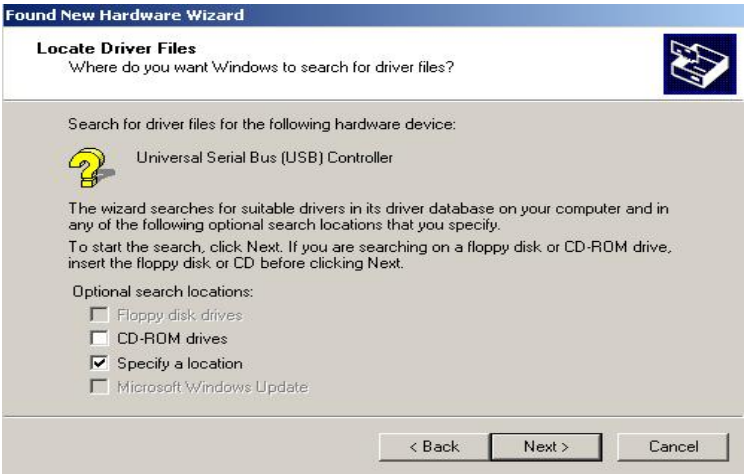
After connecting COMBOX or RF-Box to computer, please click the right key on the mouse, and follow the below steps Attribute→Driver→Update driver to select Update driver, then the guide interface of hardware installation will be displayed, refer to the below diagram:

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

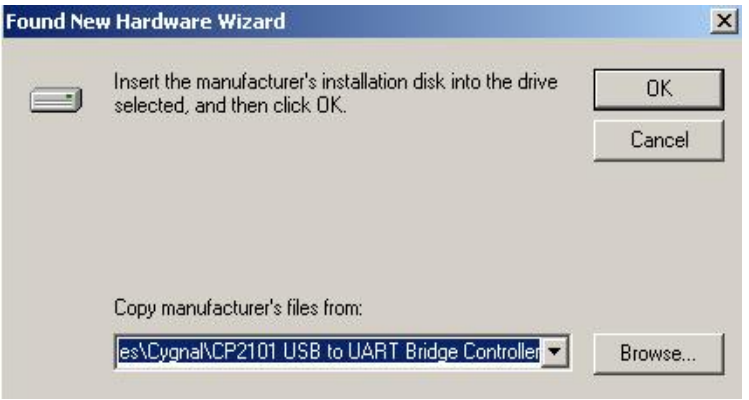
Click the Next step button, then the below drawing will be displayed.

Found New Hardware Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
Universal Serial Bus (USB) Controller
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

Select “Searching the suitable driver for me”, and click the Next step button, refer to the below drawing:


Found New Hardware Wizard
Locate Driver Files
Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
Universal Serial Bus (USB) Controller
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specify a location
Microsoft Windows Update
< Back
Next >
Cancel

Select “Specify a location”, and click the Next step button, refer to the below drawing:


Found New Hardware Wizard
Insert the manufacturer's installation disk into the drive selected, and then click OK.
OK
Cancel
Copy manufacturer's files from:
es\Cygnal\CP2101 USB to UART Bridge Controller
Browse...

Select Browse under “Copy manufacture’s file from”, find the directory of your USB to RS232(2.0) saved. Click “Open” to next step.

Please click the Next step button, then the successful installation.

Thus, USB to RS232 driver is installed completely, after successful installation of USB to RS232 driver in your computer, it creates one dummy COM port (CP2101 USB to Bridge Controller <COM4>) automatically under COM & LPT port of equipment manager, and you can find the installed Cygnal USB Composite Device under “Ports(COM & LPT)”.

If the driver is installed unsuccessfully, then it will return to the above 3. Check step on page22, and please repeat the operation again.

Note:

In order to protect the normal use of serial port, please make sure it is under closing condition when pull or plug RS232C because RS232C can't be pulled and plugged when it is working.

9. Common Question

1. System shows "connect to COMBOX unsuccessfully"

Here below are the reasons of such issue:

Ø Check the hardware connection is OK or not, refer to Hardware connection on page 9&10.

Ø Check the power led (red) is light or not, refer to COMBOX on page 7.

Ø Check USB to RS232 jack is working normally or not, refer to USB to RS232 on page 21.

Ø When it is under wireless communication, check the power led (red) and signal indicator are light or not, refer to RF-Box on page 7.

2. System shows "communicate unsuccessfully"

Here below are the reasons of such issue:

Ø Whether the vehicle installed the computer control system or not.

Ø Whether the ignition switch is open or not.

Ø Whether the diagnosis adaptor is correct or not.

Ø Whether the communication equipment is normal.

Ø When it is under wireless communication, please check the signal indicator of main unit is light or not, if it is flickering or unlighted, then the signal is unstable or missing.

Ø Check the voltage of battery in vehicle, whether the voltage is too low.